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10/677,120

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David C. Lowery

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03/21/2007

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EXAMINER

RICKMAN, HOLLY C

ART UNIT

PAPER NUMBER

1773

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

03/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/677,120

Applicant(s)

LOWERY ET AL.

Examiner

Holly Rickman

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1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 16-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/8/07 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 and 16-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a magnetic recording medium having an Abrasivity Index achieved by a combination of the type and amount of abrasive material in the upper layer and the post-coating burnishing conditions applied to the medium during assembly, does not reasonably provide enablement for a recording medium that broadly recites an Abrasivity Index. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The present claims are not limited to a medium having an Abrasivity Index that is achieved by the

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combination of burnishing conditions and type and amount of abrasive materials in the upper layer as supported by the specification (see p. 15, lines 4-15).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The rejection of claims 17-18 and 20 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mori et al. (US 5510168) is withdrawn. The examiner notes that claim 17 is now rejected under 35 USC 103(a), alone. See paragraph below under section 103 heading.

7. Claims 1-10 and 16, 19, and 21-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mori et al. (US 5510168).

Mori et al. disclose a magnetic recording tape having a non-magnetic substrate and upper and lower magnetic layers thereon. The layers contain iron particles and an abrasive material

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such as alumina (corresponding to the claimed “head cleaning agent”) dispersed in a binder. The reference discloses an example wherein the amount of alumina (head cleaning agent) is present in an amount of 10 pbw based on 100 pbw of magnetic metal powder. See col. 5, lines 27-32; col. 11, lines 1-20.

The reference does not disclose the claimed abrasivity index of the recording medium. The examiner takes the position that the structure taught by Mori et al. inherently satisfies the claim limitations directed to abrasivity index by virtue of the fact that the reference discloses a structure that is substantially the same as claimed (i.e., magnetic metal particles containing Fe dispersed in a binder with an alumina head cleaning agent).

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

With regard to the limitations of claims 8-9, it is the examiner’s position that the recitations of a DLT tape are recitations of intended use. The recording medium taught by the prior art are substantially the same as claimed are therefore, would be expected to be capable of functioning in the claimed capacity. These limitations do not add any structural features to the magnetic recording medium defined in claim 1 and therefore, do not patentably distinguish over the prior art.

Claims 21-22 include process limitations in article claims. These limitations do not present any patentable distinction over the applied prior art. It has been held that even though product-by-process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim 23 is directed to the recording density of the claimed medium. Recording density is a function of the material properties of the recording medium itself along with the particular recording head structure and recording process used. As such the examiner takes the position, the recording medium taught by Mori et al. is capable of functioning in the claimed capacity by virtue of the fact that the reference teaches a recording layer which is substantially the same as claimed in structure and composition.

8. Claims 1-10, 16-19, and 21-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kakuta et al. (US 6037051).

Kakuta et al. disclose a magnetic recording tape having a non-magnetic substrate and multiple magnetic layers thereon. The layers contain iron particles and an abrasive material such as alumina (corresponding to the claimed "head cleaning agent") dispersed in a binder. The reference discloses an example wherein the amount of alumina (head cleaning agent) is present in an amount of 10 pbw based on 100 pbw of magnetic metal powder. See col. 13, Ex 6; col.3, lines 28-36; col. 5, lines 57-63. The magnetic layers contain carbon black having a particle size

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of as low as 20 nm (col. 6, lines 5-22). Kakuta et al. teaches that the magnetic recording layer is subjected to a burnishing process. More specifically the reference teaches that a lapping method can be used (col. 3, lines 37-57; col. 11, line 62 to col. 14, line 20).

The reference does not disclose the claimed abrasivity index of the recording medium. The examiner takes the position that the structure taught by Kakuta et al. inherently satisfies the claim limitations directed to abrasivity index by virtue of the fact that the reference discloses a structure that is substantially the same as claimed and is made by a substantially similar method (i.e., burnishing method used).

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

With regard to the limitations of claims 8-9, it is the examiner's position that the recitations of a DLT tape are recitations of intended use. The recording medium taught by the prior art are substantially the same as claimed are therefore, would be expected to be capable of functioning in the claimed capacity. These limitations do not add any structural features to the magnetic recording medium defined in claim 1 and therefore, do not patentably distinguish over the prior art.

Claim 23 is directed to the recording density of the claimed medium. Recording density is a function of the material properties of the recording medium itself along with the particular

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recording head structure and recording process used. As such the examiner takes the position, the recording medium taught by Kakuta et al. is capable of functioning in the claimed capacity by virtue of the fact that the reference teaches a recording layer which is substantially the same as claimed in structure and composition.

Claim Rejections - 35 USC § 103

9. Claims 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US 5510168).

Mori et al. disclose a magnetic recording tape having a non-magnetic substrate and upper and lower magnetic layers thereon. The layers contain iron particles and an abrasive material such as alumina (corresponding to the claimed "head cleaning agent") dispersed in a binder. The reference discloses an example wherein the amount of alumina (head cleaning agent) is present in an amount of 10 pbw based on 100 pbw of magnetic metal powder. See col. 5, lines 27-32; col. 11, lines 1-20.

The reference does not disclose the claimed abrasivity index of the recording medium. The examiner takes the position that the structure taught by Mori et al. necessarily satisfies the claim limitations directed to abrasivity index by virtue of the fact that the reference discloses a magnetic recording layer structure that is substantially the same as claimed (i.e., magnetic metal particles containing Fe dispersed in a binder with an alumina head cleaning agent).

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess

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characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

Mori et al. teaches all of the features of the claims as detailed above except for the use of carbon black having a particle size of less than 20 nm. Mori et al. discloses a lower layer containing carbon black having a particle size of 300 nm or less. It is well known to those of ordinary skill in the art that carbon black is a conductive material.

Given the disclosure of a range which overlaps the presently claimed range of "less than 20 nm", it would have been obvious to one of ordinary skill in the art at the time of invention to choose a carbon particle size of less than 20 nm from the range of 300 nm or less given the apparent equivalence of all values within the range disclosed by Mori et al.

Response to Arguments

10. Applicant's arguments filed 1/8/07 have been fully considered but they are not persuasive.

Applicant argues that a prima facie case of inherency has not been established. Mori does not inherently teach the claimed abrasivity index. Applicant maintains that the mere possibility that Mori might provide the claimed Abrasivity Index is insufficient to establish inherence of the Abrasivity Index.

The examiner maintains that the claimed product and the prior art product disclosed by Mori are substantially identical for the reasons of record. As such, the burden is shifted to

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Applicant's to establish that Mori does not necessarily or inherently meet the claim limitation directed to abrasivity index. Applicant's attention is directed to MPEP 2112 (V), for further discussion relating to the issue of inherency. The examiner maintains that the recording medium taught by Mori appears to be substantially identical to the claimed recording layer. The recording layer taught by Mori has the same structure and composition as the recording layer set forth in the present claim. Thus, the burden has been shifted to Applicant to show an unobvious difference.

With regard to claim 24, Applicant argues that Mori does not disclose a *conductive* carbon black material. As noted in the rejection of claim 24 above, one of ordinary skill in the art would be aware that carbon black is a conductive material.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Holly Rickman", with a stylized flourish at the end.

Holly Rickman
Primary Examiner
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